

Claims

1. In a hydraulic control arrangement for a mobile operating machine including a lift boom, a tool mounted to an end of said boom for adjustment about a pivot axis, at least one hydraulic cylinder coupled between said boom and said tool for selectively adjusting the tool, a directional control valve coupled to first and second pressure chambers of said hydraulic cylinder for controlling the path of the pressurized fluid between said pressure chambers and a source of fluid pressure and a tank, a safety valve being inserted between said directional control valve and said first pressure chamber of said cylinder for preventing movement of said cylinder in the event of a rupture in a hose connected between said directional control valve and said safety valve, said safety valve including a valve element that can be opened to reposition said cylinder and a pressure accumulator connectible with said first pressure chamber of said cylinder, the improvement comprising: said pressure accumulator being connected to said first pressure chamber of said cylinder exclusive of any working components of said safety valve.

2. The control arrangement, as defined in claim 1, wherein said pressure accumulator is connected directly to said first pressure chamber.

3. The control arrangement, as defined in claim 1, and including a remotely controllable on/off valve coupled between said pressure accumulator and said first pressure chamber for selectively providing free fluid flow between said pressure accumulator and said first pressure chamber.

4. The control arrangement, as defined in claim 3, wherein a bypass fluid path is provided between said first pressure chamber and said accumulator for providing an alternate route for fluid to follow instead of going through said on/off valve; and said bypass fluid path containing a check valve permitting fluid flow only in the direction of said accumulator.

5. The control arrangement, as defined in claim 1, wherein said pressure accumulator is connected with said first pressure chamber only through mechanically rigid connecting elements.

6. The control arrangement, as defined in claim 1, wherein said safety

valve and said pressure accumulator are connected to said pressure chamber at separate locations.

7. The control arrangement, as defined in claim 1, wherein said safety valve includes a valve block having a fluid passage coupled to said first pressure chamber; and said accumulator being connected to said fluid passage exclusive of any working components of said safety valve.